

DUPLICATE.



Work Order ID 48565C

July 8, 2009 10:47:17 AM

Page 1

Item ID:	D3220-042	Accept		Setup	Start	
Revision ID:	A1				Stop	
Item Name:	Doubler Assembly					
Start Date:	07/15/2009	Start Qty:	4.00		Cust Item ID:	
Required Date:	08/03/2009	Req'd Qty:	4.00		Customer:	

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3220	Rev A1

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut D3220-1 as per Dwg D3220 ☐ Dwg Rev: ☐ Prog ☒  
Rev: ☐ 2-Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

120

QC8- Inspect parts - second check

0.00



QC












Memo

0.00

Quality Control

Date: Friday, 12/06/2009 9:59:23 AM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : DOUBLER ASSEMBLY
<b>Job Number</b> : 48565C	
<b>Estimate Number</b> : 10295	
<b>P.O. Number</b> :	<b>Part Number</b> : D3220042
<b>This Issue</b> : 12/06/2009 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3220 REV A1
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : A1
<b>Previous Run</b> : 47442C	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 23/06/2009 <b>Qty:</b> 4 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>Julie Dawson</u>	
<b>Comment</b> : Est Rev:A New Issue 05-11-06 JLM Est: B 06.11.15 waterjet EC	
<b>Additional Product</b>	
Job Number: 	
<b>Seq. #:</b>	<b>Machine Or Operation:</b> <b>Description :</b>
1.0 ✓	M2024T3S050 2024-T3 .050 sheet
 	
<b>Comment:</b> Qty.: 0.7266 sf(s)/Unit Total : 2.9064 sf(s) Material: 2024-T3 (QQ-A-250/4) 0.050" thick (M2024T3S.050) Identify for D3220-2 Batch: <u>111381</u> <u>B 9-6-03</u>	
2.0	WATER JET. FLOW WATER JET
 	
<b>Comment:</b> FLOW WATER JET 1-Cut D3220-1 as per Dwg D3220 Dwg Rev: <u>A1</u> Prog Rev: <u>A1</u> <u>B 9-6-03</u> 2-Deburr if necessary <u>B 9-6-03</u>	
3.0	QC2 INSPECT PARTS AS THEY COME OFF MACHINE
 	
<b>Comment:</b> INSPECT PARTS AS THEY COME OFF MACHINE	
4.0	QC8 SECOND CHECK
 	
<b>Comment:</b> SECOND CHECK <u>S 07/06/04</u> <u>(6)</u>	
5.0	SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1
 	
<b>Comment:</b> SMALL & MEDIUM FAB RESOURCE 1 1-Deburr <u>2/12/09</u>	

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Friday, 12/06/2009 9:59:23 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER ASSEMBLY

Job Number: 48565C

Part Number: D3220042

Job Number:



Seq. #:

Machine Or Operation:

Description :

2-C'sink D3220-2 as per Dwg D3220

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5096624 (16)

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

um0 01106/29

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BK 04-06-22 (6)

9.0

MS20426AD3

RIVET



Comment: Qty.: 8.0000 Each(s)/Unit Total : 32.0000 Each(s)

Pick:

Qty Part Number

Description Batch

8 MS20426AD3

Rivet

17681

3

09/07/01

10.0

MS21059L4

Nutplate



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number

Description Batch

4 MS21059L4

Nutplate

111578 (72)

1112082 (17)

09/07/01

11.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3220-042 doubler as per Dwg D3220

09/07/01 (6)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

50967101 (46)

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng/ Prod Mgr	Approval QC Inspector
09/07/01	9	MS 20426 AD3-4 <del>change</del> to long change for MS 20426 AD3-3 permanent change Batch # 7681	<i>[Signature]</i>	09/07/01	64	<i>[Signature]</i> 050701	<i>[Signature]</i> 090701

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 12/06/2009 9:59:23 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER ASSEMBLY

Job Number: 48565C

Part Number: D3220042

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

PACKAGING 1

PACKAGING RESOURCE #1



(62)

Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 176

9/7/11

SP

14.0

QC21

FINAL INSPECTION/W/O RELEASE



✓

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

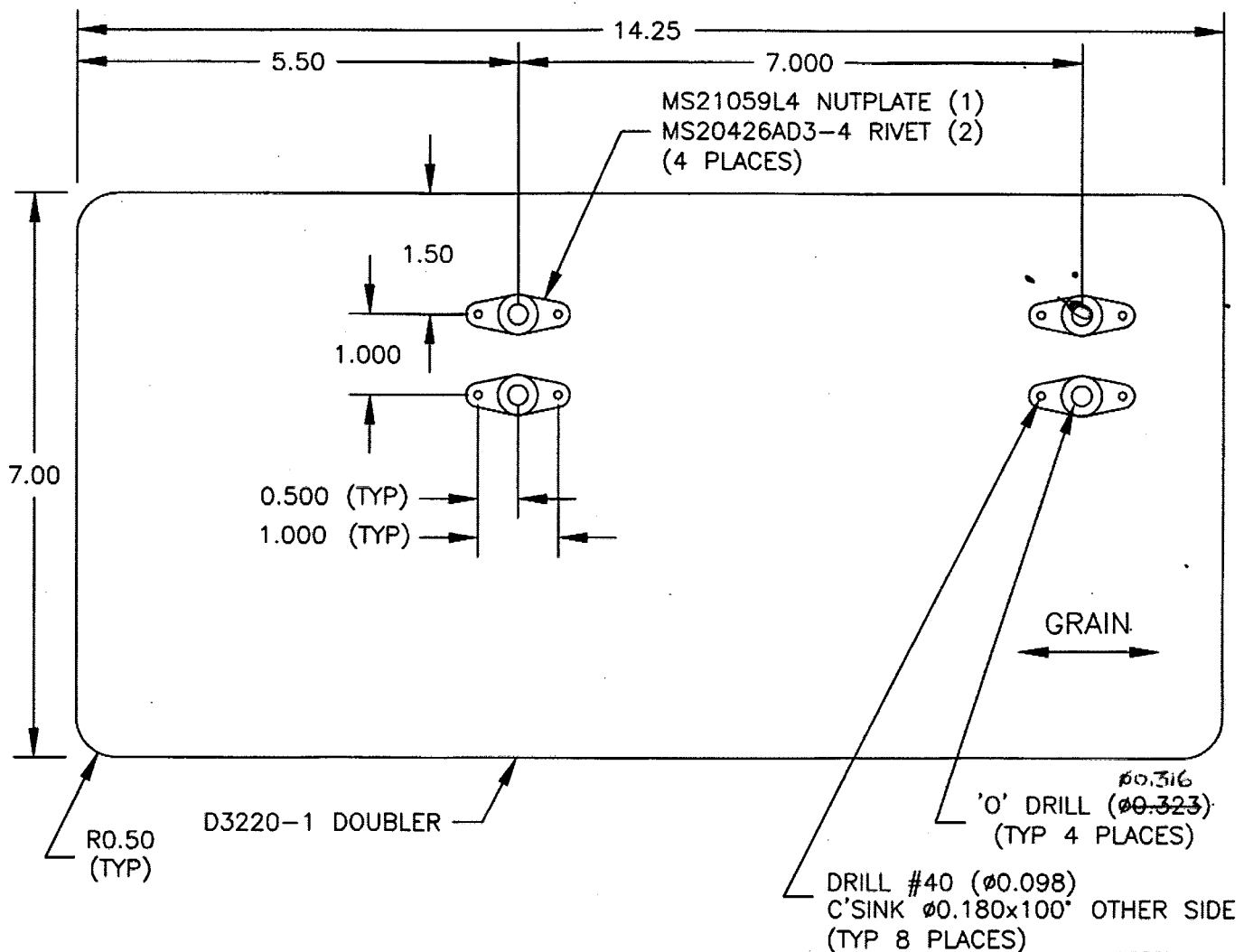
**NOTE:** Date & initial all entries





**DART**

DESIGN	#	DRAWN BY	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	#	APPROVED	#	DRAWING NO. D3220	REV. A SHEET 1 OF 2
DATE	03.10.16			TITLE DOUBLER	SCALE 1:2
A		03.10.16		NEW ISSUE	
A1	CP	03.11.13		CORRECTED DIM.	

**RELEASED**  
03.11.14**D3220-041 (SHOWN) / -042 (OPPOSITE) DOUBLER ASSEMBLY (D3220-1 DOUBLER)**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK  
(REF DART SPEC. M2024T3S.090)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 48502

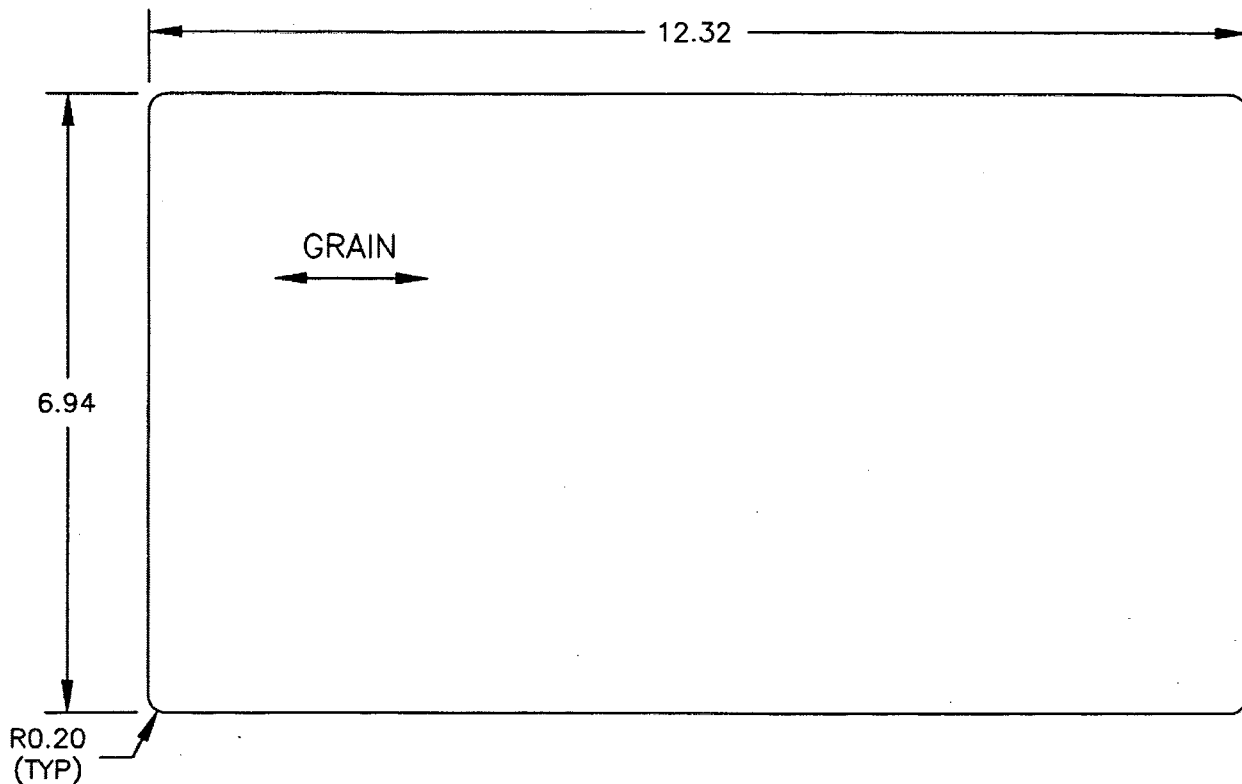
Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN #	DRAWN BY UP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3220	REV. A SHEET 2 OF 2
DATE 03.10.16		TITLE DOUBLER	SCALE 1:2

RELEASED  
03.11.14



**D3220-3 DOUBLER**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK  
(REF DART SPEC. M2024T3S.050)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 218565

Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.